

State of California
Business, Transportation and Housing Agency
Department of Transportation

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HIGHWAY FINANCIAL MATTERS
Project Greater Than 120%
Resolution: FP-00-12
CTC Meeting: July 19-20, 2000

Agenda Item: 2.5d

Original Signed by _____
W. J. Evans, Deputy Director
Finance
July 1, 2000

**ALLOCATIONS FOR PROJECTS WITH VALUE GREATER THAN 120 PERCENT OF
PROGRAMMED AMOUNT**

RESOLUTION FP-00-12

RECOMMENDATION

The Department recommends the California Transportation Commission approve the following Resolution.

FINANCIAL RESOLUTION

Resolved, that \$26,162,000 be allocated from Budget Act Items 2660-301-0042 and 2660-301-0890, Budget Act of 1999 and 2000 for the projects on the attached list.

The Department has complied with the National Environmental Policy Act and the California Environmental Quality Act requirements in preparing these projects.

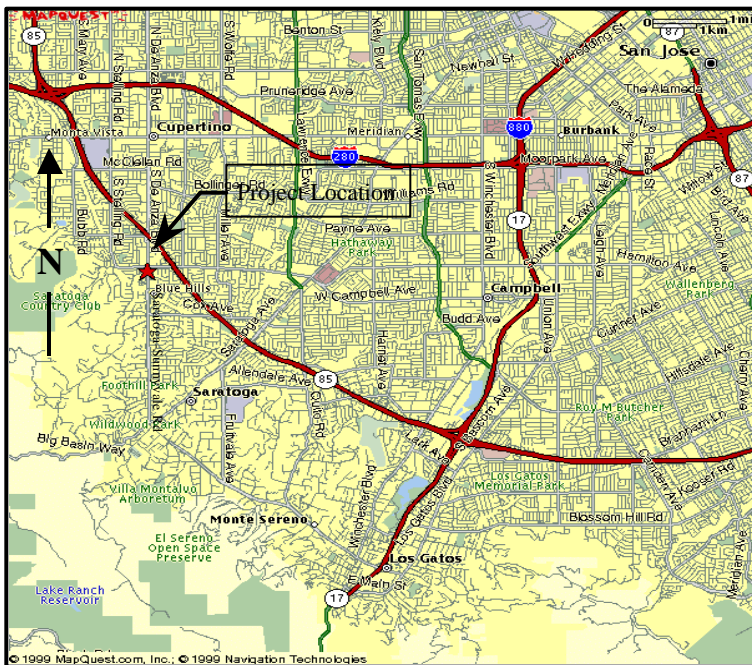
These major construction projects proposed for funding are included in the adopted State Highway Operation and Protection Program (SHOPP).

SUMMARY AND CONCLUSIONS

This resolution allocates State and Federal funds of \$26,162,000 for four (4) new major construction projects. These projects have a total cost greater than 120 percent of the programmed amounts.

The additional funds of \$8,137,000 requested for these SHOPP projects will come from SHOPP savings.

Project # Allocation Amount Recipient County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA (PPNO) Program (Prog Year) Prog Amount	Budget Year Item # Program Codes	State Federal Total Amount
1 \$2,333,000 Department of Transportation Santa Clara 04N-SCL-85 10.4/13.2	In Saratoga, San Jose and Cupertino on Saratoga-Sunnyvale Road from Junction Route 9 to Route 85. Rehabilitate roadway. Support Expenditures to Date: \$470,933	437801 (0430B) SHOPP/99-00 \$1,471,000	1999-00 301-0042 301-0890 20.20.201.120	\$268,000 \$2,065,000 \$2,333,000



PROJECT DESCRIPTION

This project is in Santa Clara County, in the cities of San Jose, Cupertino, and Saratoga. Extensive negotiations were required to reach cooperative agreements with the three cities to relinquish the roadway for specific lump sum values. The cities will use the funds for rehabilitation work needed to bring the roadway to a state of good repair.

FUNDING STATUS

This project is currently programmed in the 2000 SHOPP for \$1,471,000 in the 1999/2000 fiscal year. This request for \$2,333,000 is approximately 159% of the programmed amount.

BACKGROUND

Due to construction of the new Route 85 connecting Route 280 in Cupertino to Route 101 in South San Jose, the Department supports relinquishing the old Route 85 which goes through Cupertino, San Jose and Saratoga. (See related Book Item 2.3C)

The current relinquishment project was originally part of a roadway rehabilitation and relinquishment project (EA 437821) programmed for \$2,418,000 in the 1996 SHOPP. Due to the difficulties in reaching an agreement with the City of Saratoga, a decision was made to split the project into two deliverable segments (EA 437791 and EA 437801). After the execution of Cooperative Agreements with the cities of San Jose and Cupertino, one of the two segments (EA 437791) was rehabilitated and relinquished to the two cities in September 1999.

The remaining portion of the old Route 85 (Saratoga Sunnyvale Road) from Route 9 to the interchange of the new Route 85 with Saratoga Sunnyvale Road is now covered under the current project (EA 437801). This portion of the roadway will be relinquished to the cities in exchange for funding from the State for roadway repairs.

REASON FOR INCREASE

As a result of recent negotiations with the 3 cities, cooperative agreements have been executed to relinquish the remaining segment of old Route 85. Based on the cooperative agreements, the cities will accept the roadway in exchange for the following agreed amounts for each city:

City of Saratoga	\$2,006,000
City of Cupertino	\$ 170,000
<u>City of San Jose</u>	<u>\$ 157,000</u>
Total	\$2,333,000

The total amount is \$862,000 over the amount programmed for the project. The primary reason for this increase is cost escalation since the project was scoped in 1993. The escalation contributed \$500,000 to the cost increase. Since the project was programmed, there were two El Nino periods that deteriorated the pavement extensively, resulting in an estimated additional repair cost of approximately \$162,000. Due to the change in the city's standards for traffic signals, it is estimated that an additional \$200,000 will be needed to bring the existing signals to current standards.

FUNDING OPTIONS

OPTION A: Approve this request as presented above for \$2,333,000 in order to relinquish the roadway to the cities.

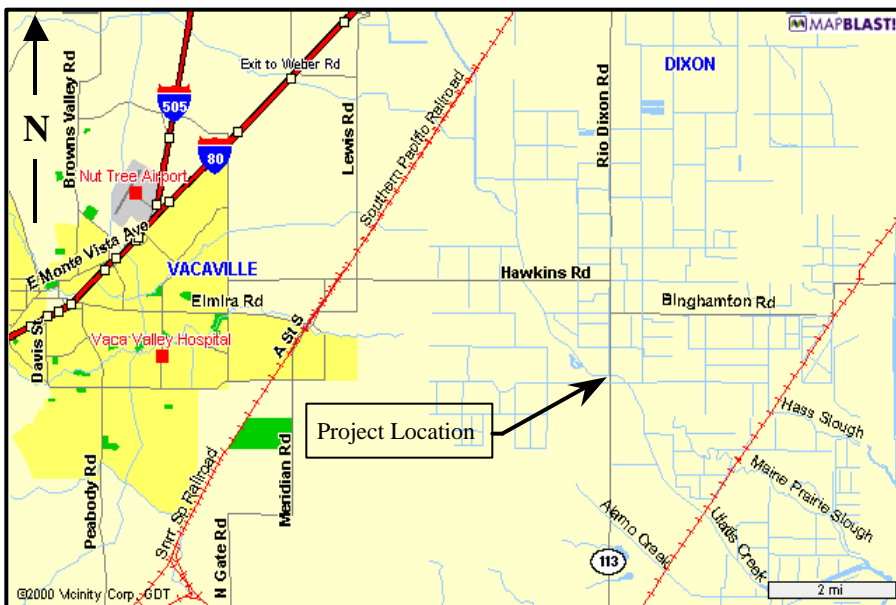
OPTION B: Deny this request and direct the Department to renegotiate with the cities to bring the cost within the programmed amount.

The Department has expended considerable effort in negotiating a successful agreement with the cities, and considers the agreed amount to be a fair compensation to the cities. Delaying the relinquishment will result in continued maintenance and liability costs for the Department.

RECOMMENDED OPTION

The Department recommends that this request for \$2,333,000, as presented in Option A above, be approved to facilitate relinquishment of the roadway.

Project # Allocation Amount Recipient County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA (PPNO) Program (Prog Year) Prog Amount	Budget Year Item # Program Codes	State Federal Total Amount
2 \$1,969,000 Department of Transportation Solano 04N-Sol-113 11.6/11.9	Approximately 11 kilometer south of Dixon at Ulatis Creek Bridge. Replace bridge. Support Expenditures to Date: \$844,861	0T0701 (8603) SHOPP/99-00 \$1,430,000	1999-00 301-0042 301-0890 20.20.201.111	\$226,000 \$1,743,000 \$1,969,000



PROJECT DESCRIPTION

This project is on Route 113 in Solano County, approximately 11 kilometers south of the City of Dixon. This project proposes to remove the existing scour critical Ulatis Creek bridge and replace it with a new structure that is approximately 0.3 meter higher than the existing deck elevation. The bridge approaches and roadway profile will be modified to meet the bridge surface and the access roads at the ends of the bridge will be realigned to allow for placement of standard bridge approach rails.

FUNDING STATUS

The project is currently programmed in the 2000 SHOPP for \$1,430,000 in the 1999/2000 fiscal year. This request for \$1,969,000 is 138% of the programmed amount.

BACKGROUND

The existing bridge has a timber substructure in which approximately 15% of the timber piles were found to have a substandard structural capacity. The existing structure was built in 1943 and is near the end of its

expected serviceable life. The original Project Scope Summary Report (PSSR) approved in August 1995 recommended replacing the existing structure. The new structure is being raised about 0.3 meter to accommodate a deeper superstructure depth while maintaining the same hydraulic capacity under the bridge.

REASON FOR INCREASE

Detailed foundation investigation revealed that the project site is in a liquefaction zone, requiring complex foundation design. This has resulted in an increase of approximately \$203,000.

Due to the existing configuration of Route 113, the PSSR assumed constructing the bridge in two halves. However, the preliminary design did not anticipate the complexity of the required roadway construction staging. During the final design, it was discovered that more extensive staging work will be required in order to keep traffic disruptions to an acceptable level. An additional \$265,000 is needed to provide for more temporary construction barriers, additional traffic control, and a temporary signal system.

The Solano County Water District required that a reinforced concrete box culvert be placed under the realigned access road at the northwest corner of Ulatis Creek to provide adequate flow capacity and eliminate water backing into the ditch. Placement of additional pipe culverts under the other realigned access roads also added to the increased cost. These changes resulted in an increase of approximately \$36,000.

\$35,000 is needed to compensate the Maine Prairie Water District for operating its pump at a lower head due to draw-down of the water elevation at Ulatis Creek for construction of the bridge.

FUNDING OPTIONS

OPTION A: Approve this request as presented above for \$1,969,000 to allow this project to be advertised.

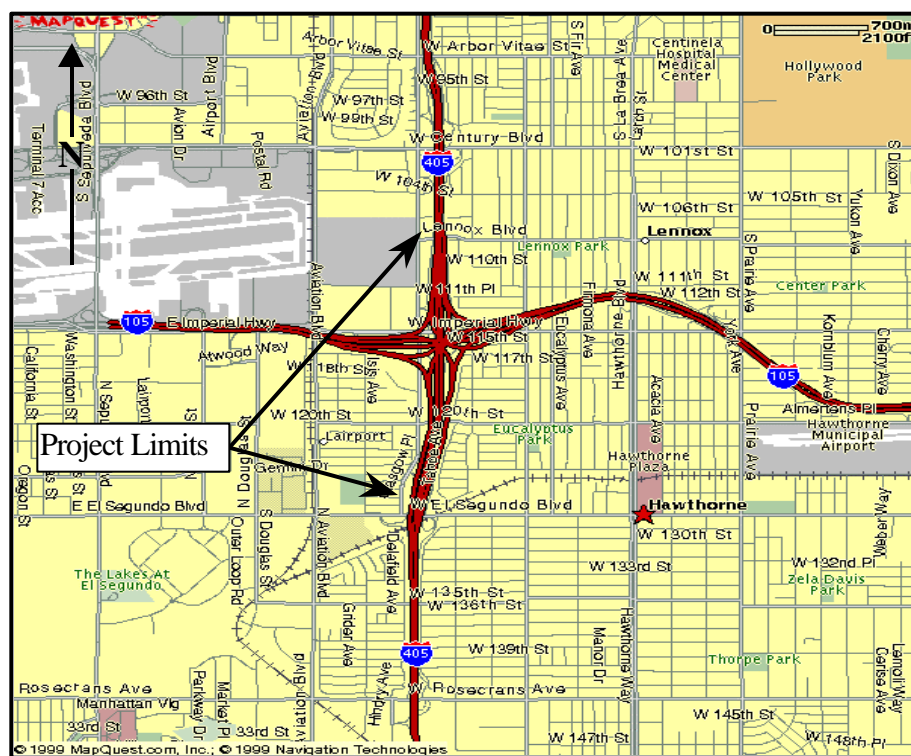
OPTION B: Deny this request and direct the Department to redesign the project to bring the costs within the programmed amount.

The Department considered this option. The project as designed provides the best solution for traffic handling during the construction. None of the elements of the project can be removed to reduce the project cost. Delaying the project will jeopardize this scour critical structure.

RECOMMENDED OPTION

The Department recommends that this request for \$1,969,000, as presented in Option A above, be approved to allow this project to be advertised.

Project #	Allocation Amount	Recipient	County	Location	EA (PPNO)	Budget Year	State
Dist-Co-Rte	Postmile	Project Description	Program (Prog Year)	Program Item #	Program Codes	Program Codes	Federal
		Project Support Expenditures	Prog Amount				Total Amount
3							
\$3,525,000	In and near Hawthorne at various locations from El		172201	1999-00			
Department of	Segundo Boulevard Undercrossing to 0.2 kilometer south		(2026)	301-0042			\$297,000
Transportation	of Lennox Boulevard Undercrossing.		SHOPP/99-00	301-0890			\$3,228,000
Los Angeles	Rehabilitate roadway and repair slope.			20.20.201.120			
07S-LA-405							
R32.5/35.4	Support Expenditures to Date:	\$468,649	\$1,776,000				\$3,525,000



PROJECT DESCRIPTION

The project is in Los Angeles County, near Hawthorne, between El Segundo Boulevard to Lennox Boulevard. The work involves removal and replacement of failed fill materials, repair of existing slopes, replacement of damaged pavement, construction of a retaining wall, and improvements to existing drainage.

FUNDING STATUS

The project is currently programmed in the 2000 SHOPP for \$1,776,000 in the 1999/2000 fiscal year. The current estimated cost of \$3,525,000 is approximately 199% of the programmed amount.

BACKGROUND

This project was initiated to repair the interchange ramps and embankment slopes damaged by the settlement of soil. A Project Scope Summary Report (PSSR) for this project was approved in October 1997. A Supplemental PSSR was prepared for this project in September 1999. The PSSR called for crack sealing the ramp pavement and re-grading the damaged embankment slopes. Investigations subsequent to the PSSR determined the cause of the cracking and slope failure to be subsidence of the underlying compressible fill materials. A geotechnical investigation determined the compressible soils must be removed and replaced to a depth of at least three meters below the ground surface. In addition, the damaged pavement sections need to be replaced and the drainage system improved.

REASON FOR INCREASE

The increase in the cost of the project is primarily due to the need to replace the existing compressible fill materials and the damaged pavement. Grading operations to remove the existing fill and replace it with suitable fill material, and the need to completely remove and replace the roadway structural section rather than crack sealing, have increased the cost of the project by approximately \$1,700,000. Additional costs also include increases in replacement plantings (\$97,000) due to an increase in the amount of slope affected by grading, a more complex traffic management plan (\$35,000), increase in the quantity of Metal Beam Guard Railing (\$25,000) and increases in the mobilization and contingency costs (\$92,000) which are a percentage of total cost. These increases were somewhat offset by the \$200,000 decrease in estimated costs for drainage rehabilitation, retaining walls and rehabilitation of existing Portland Cement Concrete pavement.

FUNDING OPTIONS

OPTION A: Approve this request, as presented above, for \$3,525,000 to allow this project to be advertised.

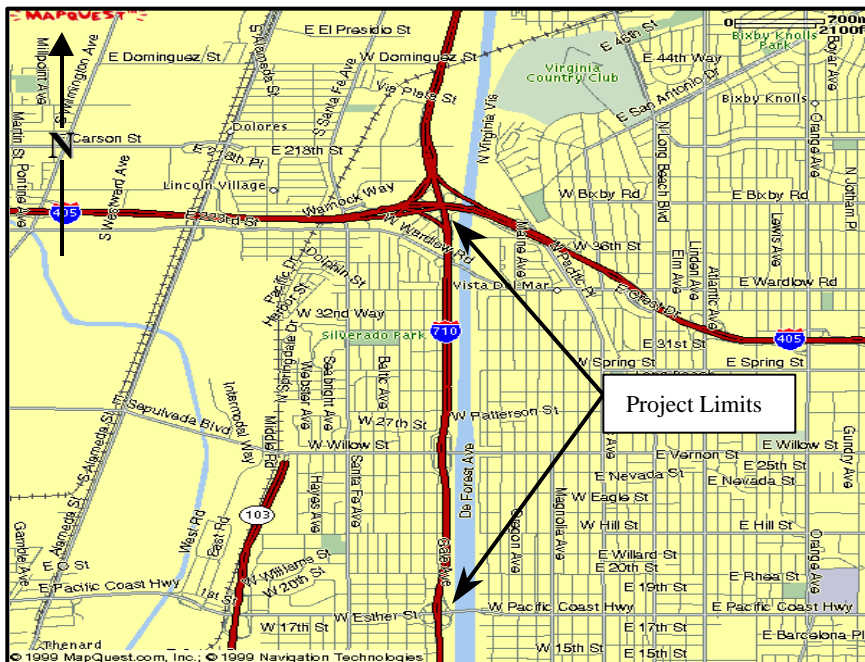
OPTION B: Deny this request and direct the Department to deliver the project within the programmed amount.

The Department considered this option and came to the conclusion that none of the work from this project can be eliminated. Per the geotechnical investigation report, replacement of the substandard fill material is the only solution to remedy the situation. The project, as submitted, provides the best long-term solution to the deterioration of the slopes and ramps.

RECOMMENDED OPTION

The Department recommends that this request for \$3,525,000, as presented in Option A above, be approved to allow this project to be advertised.

Project # Allocation Amount Recipient County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA (PPNO) Program (Prog Year) Prog Amount	Budget Year Item # Program Codes	State Federal Total Amount
4 \$18,335,000 Department of Transportation Los Angeles 07S-LA-710 6.8/9.7	In Long Beach from Pacific Coast Highway to Route 405. Rehabilitate roadway with Longer Life Asphalt Concrete Support Expenditures to Date: \$1,417,872	1384U1 (0191M) SHOPP/00-01 \$13,348,000	1999-00 301-0042 301-0890 20.20.201.120	\$2,103,000 \$16,232,000 \$18,335,000



PROJECT LOCATION & DESCRIPTION

The project is in Los Angeles County on Route 710 between the Pacific Coast Highway (Route 1) and Route 405. The work involves pavement rehabilitation utilizing a Longer Life Asphalt Concrete strategy, including median and shoulder reconstruction, replacement of the median metal beam guard railing with concrete barrier, construction of maintenance pull outs, and minor textured AC work at selected locations. The rehabilitation strategy is to crack, seat and overlay the existing pavement with 9 inches of Longer Life Asphalt Concrete (AC) topped by an open graded rubberized AC wearing surface. The full structural section will be replaced at four Overcrossing locations to maintain standard vertical clearances.

FUNDING STATUS

The project is currently programmed in the 2000 SHOPP for \$13,348,000 in the 1999/2000 fiscal year. The current estimated cost of \$18,335,000 is approximately 137% of the programmed amount.

BACKGROUND

A project to rehabilitate Route 710 between Pacific Coast Highway (Route 1) and Long Beach Boulevard was first proposed in October 1993. The original scope of work at that time was rehabilitation of the Portland

Cement Concrete (PCC) pavement and widening of right shoulders from 8-foot to the standard 10-foot width from Route 1 to Long Beach Boulevard. In March 1997, the original project and a median barrier upgrade project were combined into one project with a total estimated cost of \$13,348,000.

In September 1998, the Department's Pavement Design Department proposed this project as a pilot project for Asphalt Concrete Longer Life Pavement (ACLLP). A committee composed of members from the Department, the University of California- Berkeley, and the Asphalt Industry conferred on the overlay strategy, constructability and traffic handling for this pilot project.

Because the ACLLP strategy has a higher initial cost, the roadway rehabilitation and the median barrier work were cut by approximately 50%. The remaining rehabilitation and the median barrier work will be completed in a separate future contract.

REASON FOR INCREASE

The project has undergone several revisions since the decision to convert it to a Longer Life AC project. These revisions resulted in increases to the project cost. Specifically, the cost increases are due to:

1. The inclusion of the Storm Water Pollution Prevention Plan (SWPPP) requirements which were not present when the project was originally proposed (\$800,000)
2. The use of incentive/disincentive clauses in the contract (\$500,000)
3. Increase in AC costs (\$811,000)
4. The complete removal of the structural section beneath the overcrossings and replacement with Longer Life AC to maintain standard vertical clearance (\$2,126,000)
5. Additional Traffic Management (\$450,000) and
6. Textured AC for highway beautification program (\$300,000).

FUNDING OPTIONS

OPTION A: Approve this request as presented above for \$18,335,000 to allow this project to be advertised.

OPTION B: Deny this request and direct the Department to redesign the project to bring the cost within the programmed amount.

The Department considered this option. The project as submitted provides the best long-term solution to the deterioration of the pavement. The project limits were already reduced by half in order to accommodate the Longer Life AC strategy. Any further reduction of the project limits in order to retain the project cost within the programmed amount would not be economically feasible.

RECOMMENDED OPTION

The Department recommends that this request for \$18,335,000, as presented in Option A above, be approved to allow this project to be advertised.